

Remarks

Claims 1-10 are pending in the present application. By this amendment, claims 1 and 10 have been amended for non-statutory reasons: to replace European-style claim phrasology with American-style claim language. No new matter is believed added.

Claims 1, 5, 6, 9, and 10 are rejected under 35 U.S.C. 103(a) over Applicants' alleged admitted prior art, hereafter "Applicants' Art," in view of Davis et al. (US 6,611,607), hereafter "Davis." Claims 2, 3, and 7 are rejected under 35 U.S.C. 103(a) over Applicants' Art, Davis, and further in view of Liao et al. (U.S. 6,654,479), hereafter "Liao." Claims 4 and 8 are rejected under 35 U.S.C. 103(a) over Applicants' Art, Davis, and further in view of Hayashi (U.S. 2003/0161496). These rejections are defective because the cited references, taken alone or in any combination, fail to teach or suggest each and every feature of the claims as required by 35 U.S.C. 103(a).

Regarding independent claim 1 (and similarly independent claims 6 and 10), the Examiner alleges that Applicants' Art "discloses a method of embedding a watermark in an information signal, comprising means for embedding said watermark in successive portions of the information signal, said versions being different with respect to a property which is irrelevant for detection of said watermark." To support this allegation, the Examiner refers to page 1, lines 16-23 of the specification. Applicants strenuously disagree.

The section of the specification cited by the Examiner is reproduced below:

"An example of a prior-art watermark embedding method is disclosed in International Patent Application WO-A-99/45707. The prior-art method relates to watermarking a motion video signal. For complexity reasons, the same watermark is embedded in every image (field or frame) of the video signal. To reduce the complexity even more, a small watermark pattern is tiled over the image. A typical tile size is 128x128 pixels. At the detection side, the tiles of a number of images are folded into a 128x128 buffer. Detection is then performed by correlating the buffer contents with the small watermark."

Contrary to the unsupported allegations of the Examiner, this section of the specification does not disclose a "means for embedding said watermark in successive portions of the information signal, said versions being different with respect to a property which is irrelevant for detection of said watermark." Indeed, this section of the specification discloses that the same watermark is embedded in every image (field or frame) of the video signal. Further, this section is completely silent with regard to the use of different versions of the same watermark, wherein each version is different with respect to a property which is irrelevant for detection of said watermark as claimed. The only property of a watermark disclosed in this section is a typical tile size of 128x128 pixels, which is clearly relevant (not irrelevant as claimed) for the detection of the watermark.

In the Office Action, the Examiner asserts that Applicants' Art "does not explicitly disclose embedding different versions of watermark." (Office Action, page 2, paragraph 4). This assertion is confusing and contradictory since the Examiner previously alleges in the Office Action that Applicants' Art discloses "said versions being different with respect to a property which is irrelevant for detection of said watermark." Clarification is requested.

To remedy the deficiencies of Applicants art, the Examiner relies on the teachings of Davis. In particular, the Examiner alleges that Davis discloses that "different watermarks can be embedded into different frames using different transformations (Davis: column 6 lines 16-26)." The Examiner attempts to combine Applicants' Art and David by stating that "[i]t would have been obvious ... to combine the teachings of Davis within the system of AAPA because it increases security of data using different watermarks on different portions of the information signal thus making it more difficult to analyze watermark patterns." Applicants disagree with the Examiner's analysis of Davis.

In claim 1, different versions of the same watermark are embedded in successive portions of an information signal. In Davis however, "the embedder can locate different watermark messages in different transform domains (e.g., Discrete Fourier Transform, Discrete Cosine Transform, Wavelet transform, etc.) of image or audio signals." (Column 6, lines 23-26). Thus, Davis clearly discloses the use of different watermarks instead of different versions of the same watermark as claimed.

Liao and Hayashi fail to remedy the above-described deficiencies of Applicants' Art and Davis.

Accordingly, since the cited references, taken alone or in any combination, fail to teach or suggest each and every feature of the claims as required by 35 U.S.C. 103(a), Applicants respectfully submit that claims 1-10 are allowable.

If the Examiner believes that anything further is necessary to place the application in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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